

CLAIMS

1. A method of identifying a substance suitable for use in the treatment of a leukocyte-associated inflammatory disease which modulates the activity of a polypeptide encoded by the human transient receptor potential 6 gene, wherein the method comprises combining a candidate substance with said polypeptide and measuring the effect of the candidate substance on the activity of said polypeptide.
2. A method according to claim 1 wherein the candidate substance is combined with cells that are stably-transfected with TRPC6 and express a functional TRPC6 channel and measuring any membrane depolarisation to indicate a TRPC6-mediated Na⁺ influx.
3. A method according to claim 1 wherein the cells express an endogenous calcium-mobilising G protein-coupled receptor that can activate TRPC6 channels by agonist stimulation and a receptor agonist is added after the candidate substance to stimulate the TRPC6 channels and allow for any inhibition to be measured.
4. A pharmaceutical composition comprising a compound that inhibits the influx of calcium ions through a human TRPC6 ion channel and a pharmaceutically acceptable carrier.
5. A pharmaceutical composition according to claim 4 wherein the compound is 1-[b-[3-(4-methoxyphenyl)propoxy]-4-methoxyphenethyl]-1H-imidazole·HCl.
6. A method of treating a leukocyte-associated inflammatory disease in a subject in need of such treatment, which comprises administering to said subject an effective amount of an antibody which is immunoreactive with a polypeptide encoded by the human TRPC6 gene or an antisense oligonucleotide comprising a nucleotide sequence complementary to a polynucleotide comprising a nucleotide sequence encoding that polypeptide.
7. The method according to claim 6, in which the disease is a neutrophil-associated disease such as chronic obstructive pulmonary disease, adult respiratory distress syndrome, rheumatoid arthritis or inflammatory bowel disease.
8. The method according to claim 6, in which the disease is an eosinophil-associated disease such as asthma or allergic rhinitis.

9. A method of treating a leukocyte-associated inflammatory disease in a subject in need of such treatment, which comprises administering to said subject an effective amount of a TRPC6 inhibitor.

10. A method of treating pulmonary hypertension in a subject in need of such treatment, which comprises administering to said subject an effective amount of a TRPC6 inhibitor.